

The *Microvolt*

December 2019



Prologue

Publication: *The Microvolt* (USPS 075-430) is the official publication of the Utah Amateur Radio Club, Incorporated, 632 S. University Street, Salt Lake City, UT 84102-3213. It is published monthly except August. Subscription is included with club membership at \$20 per year. Single copy price is \$1.50. Periodicals postage paid at Salt Lake City, Utah. Postmaster: send address corrections to *The Microvolt*, c/o Tom Kamlowsky, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

Deadline for submissions is the 24th of each month prior to publication. Submissions by email are preferred (k7hfv@arrl.net), but other means including diskettes and typewritten submissions can be mailed directly to: Gordon Smith, 632 University St., Salt Lake City, UT 84102-3213. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Tom Kamlowsky, 4137 Clover Lane, Salt Lake City, UT, 84124-2711.

Club: The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City area.

Meetings: The club meets each month except July and August. The meetings are held on the second Thursday of the month at 7:30 PM in the University of Utah's Warnock Engineering Building, generally in room 1230 or 2230, sometimes in 2250 or 105.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$20 per year, including a *Microvolt* subscription. *The Microvolt* and membership cannot be separated. Those living at the same address as a member who has paid \$20 may obtain a membership without a *Microvolt* subscription for \$12. Send dues to the Club Secretary: Tom Kamlowsky, WA7ZRG, 4137 Clover Lane, Salt Lake City, UT 84124-2711. Let the Secretary know if you prefer the electronic edition of *The Microvolt* instead of the printed version.

Contributions: Monetary contributions are gladly accepted. Send directly to the Club Treasurer: Chuck Johnson, 1612 W. 4915 S. Taylorsville, UT 84123-4244. For in-kind contributions, please contact any board member to make appropriate arrangements.

Repeaters: UARC maintains the 146.62- and 146.76- repeaters. The repeaters are administered by the UARC Repeater Committee. Comments and questions may be directed to any Committee member. The Lake Mountain repeater (146.76-) is IRLP node 3352. Instructions for IRLP use are on the club website.

Ham Hot-Line: The Utah Amateur Radio Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club, testing, meeting, and membership information. If no one answers leave your name, telephone number and a short message on the answering machine, and your call will be returned.

UARC 2019 Board

President: Morris Farmer, AD7SR	801 278-4966
Executive VP: Lonnie Oaks, K7LO	801 255-1225
Vice Pres: Bruce Fereday, KF7OZK	801 883-9428
Secretary: Tom Kamlowsky, WA7ZRG	801 505-9134
Treasurer: Chuck Johnson, WA7JOS	801 268-0153
<i>Microvolt</i> Editor: Gordon Smith, K7HFV	801 582-2438
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Imm. Past President: Clint Turner, KA7OEI	801 566-4497

Committee Chairpersons and Members

Bookseller: Rick Gregory, KG7GOW	801 582-7783
Historian: Ron Speirs, K7RLS	801 904-3587
Field Day Chair: (To be determined)	
License Trustee: Brett Sutherland, N7KG	801 298-5399
Repeater Engineer: Clint Turner, KA7OEI	801 566-4497
Autopatch Engineer: Gordon Smith, K7HFV	801 582-2438

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IRLP Information

For information on using the club's IRLP node on the 146.76 repeater, check <http://www.utaharc.org/irlp>.

For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to: <http://user.xmission.com/~uarc/announce.html>

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For account information go to: <http://www.xmission.com/>

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The Microvolt

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December Meeting: FM Operating Practices Plus Elections

“Why did you get into amateur radio?” The most common answer these days is: “To help with emergency communications.” So how do you train for emergency work? How do you get involved? What organizations should you join? What kind of equipment do you need? How much time commitment is required? These are important questions and our December meeting will be addressing them.

There are two major nationwide organizations of amateur operators prepared for emergency work. One is the Radio Amateur Civil Emergency Service or RACES. RACES operators can continue to operate in times of radio silence such as that declared during World War II. To get a head start on RACES see the RACES web page at [Utah RACES](#). Another important organization is the Amateur Radio Emergency Service or ARES. ARES is a volunteer group organized by the American Radio Relay League (ARRL). Our presenters at the December meeting will be Bob Craven, N7GTE, who is the leader of Utah RACES, and Eldon Farnsworth, KF7YXL, the Emergency Coordinator for Salt Lake County, representing ARES.

The December meeting is also time for election of officers for 2020. The Board will present its choices and there will be an opportunity for nominations from the floor. Be thinking about who you would like to have lead the club in the coming year.

The meeting will take place Thursday, December 12, at 7:30 P.M., in room 1230 of the Warnock Engineering Building on the University of Utah campus.

Except for July and August, UARC meetings are held on the second Thursday of each month at 7:30 P.M. The room number varies with availability. See <http://user.xmission.com/~uarc/meetmap.html> for a map and information on finding the building.

Of course, the meeting will include the “standard” meeting features:

- Availability of ARRL books from Rick, the book seller
- An opportunity to join UARC or renew your membership
- An opportunity to join ARRL or renew your membership
- The chance to meet face-to-face the people you talk to on the air
- The “Meeting after the meeting”: A chance to enjoy pizza or other gastronomic delights with other hams. It happens at Litza's Pizza, 716 E. 400 South.
- The “Meeting *before* the meeting”: A similar get-together for those who can leave work early enough to get there by 5:15 P.M. It is held at “The Village Inn,” 910 E. 400 South in Salt Lake City.

Latest News

Our Cover

Field Day results are now in! Listings of entries and scores for the Field Day operating event of 2019 appeared in the December issue of *QST* magazine and in a database on the ARRL web site. We are happy to see that UARC had the highest raw score of any of the entries from Utah. Our cover shows the A-3 Yagi being assembled at our site near Payson Lakes. More details elsewhere in this issue. Thanks to Ron, K7RLS, for the photo.

January License Classes

Starting in January, UARC President, Morris Farmer, will be teaching classes for amateur licensing. There will be a separate weekly series of class sessions for each class of license.

The classes will be taught in Morris' hamshack and workshop where he can do demonstrations of radio operation and electrical principles. Bill Rouleau, AE7UI, will join Morris for teaching of the Technician and General classes, while Ron Speirs, K7RLS, will assist for the Extra class.

Classes will meet weekly. The Technician and General classes will run from six to eight weeks, while the Extra class will continue for about twice that length.

The only cost for any of the classes is the ARRL study guide for that class of license. It can be obtained at the first class session.

The schedule is as follows:

License Class	Day of Week	Starting Date
Technician	Mondays	1-13-20
General	Tuesdays	1-14-20
Extra	Wednesdays	1-15-20

Space is limited. To sign up for any of the classes, contact Morris by e-mail at: f.morris1@comcast.net.

Nominations

Our December meeting is time for election of UARC officers for 2020. According to the bylaws we must present all nominations entered thus far. They are listed below. At the meeting there will be an opportunity for members to make further nominations immediately before the vote.

Nominees for 2020:

President:

Morris Farmer, AD7SR

Executive Vice-President:

Lonnie Oaks, K7LO

Vice-President:

Bruce Fereday, KF7OZK

Secretary:

Tom Kamlowsky, WA7ZRG

Treasurer:

Chuck Johnson, WA7JOS

Program Chairperson:

Robert Jelf, KG7OHV

Program Chairperson:

Mary Jelf, KG7ONG

Program Chairperson:

Linda Reeder, N7HVF

Microvolt Editor

Gordon Smith, K7HFV

Assistant Microvolt Editor:

Rick Asper, AC7RA

David Dutson, WB7ERW, SK

Dave was born on December 13th, 1948 and passed away on November 10th, 2019 of a tragic home accident having just finished an upgrade to his rig.

Dave was an active Ham for many years, participated in several nets, and was a member of UARC for quite some time also. Dave suffered from a disability that made it difficult for him to get around and required that he use oxygen all the time. Because of his physical problems he came to us when he need help with his equipment.

Bill Rouleau, AE7UI, and I worked with Dave on several projects from a doomed-from-the-start

multi element HF antenna, to equipment upgrades in his shack, and working on his mobile rig. Dave was always cheerful and grateful for any assistance we could give him.

Dave will be missed.

—Morris Farmer, AD7SR, and Bill Rouleau, AE7UI

License Examination Schedule

Opportunities to test for new or upgraded amateur licenses

Date	Day	City	Contact Person	Phone
12/04/19	(Wed.)	Clearfield	Joe Girauda, N7JEH	(775) 777-4798
12/07/19	(Sat.)	Salt Lake City ^{1,4}	Gordon Smith, K7HFV	(801) 582-2438
12/07/19	(Sat.)	Logan	Richard D. Elwood, KE7GYD	(435) 770-7050
12/07/19	(Sat.)	Hurricane ²	Gary O. Zabriskie, N7ARE	N/A
12/19/19	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
1/15/20	(Wed.)	Provo ⁵	Steve Whitehead, NV7V	(801) 465-3983
1/15/20	(Wed.)	St. George ²	Gary O. Zabriskie, N7ARE	N/A
1/27/20	(Mon.)	Taylorsville ^{3,5}	Garth Wiscombe, W7PS	(801) 558-5936

¹Preregistration required. Check with the contact person before the test session.

²More information at <http://www.dixieham.org/meetings.html>

³New location is the Taylorsville City Hall, 2600 Taylorsville Blvd, Room 110

⁴More information at <http://www.utaharc.org/Exams/>

⁵Preregister by going to <http://www.hamstudy.org/sessions/> and finding the session date.

More details at <http://user.xmission.com/~uarc/testinfo.html>

An Electrical Christmas Story

By Ron Speirs, K7RLS

Many years ago, my wife and her friend, who lived across the street, were involved in decorating a tree for the annual Festival of Trees. On the day before the festival was to open, they were at the Salt Palace putting the finishing touches on the tree. I got a call at work from my wife: “One of the strings of lights isn't working. Can you come and help us?”

I grabbed a VOM (volt-ohm-meter) and went to the Salt Palace. As you know, the miniature lights, which were popular in those days, are a series string and if one light burns out, the whole string goes out. I located

the bad lamps and replaced them with the spares they had, but came up one lamp short. I asked, “Does anyone have a piece of gum? I don't want the gum, just the foil wrapper.” Taking the foil wrapper, I jammed a piece into an empty socket in an unnoticeable place, and the lights came on. I then left and went back to work. The tree was sold and everyone was happy.

Three weeks later, late at night, my wife's friend knocked at the door, livid with rage. “Do you know that you almost made me burn my house down?” she said. I had no idea what she was talking about, so my

wife and I went to her house across the street. Upon entering we detected the unmistakable smell of burned insulation along with a hazy blue smoke in the air. "I had a burned out light in my Christmas lights, and so I put some aluminum foil in the socket, just like you did! It worked for you at the Salt Palace!"

She had put household aluminum foil into a socket of a 115-V *parallel* string, which presented almost a dead short in the circuit. The wires, which are a small gauge, got very hot and melted the insulation. I almost collapsed with laughter, and the more I laughed, the angrier she got.

The moral: A little knowledge is a dangerous thing!

Utah Field Day Results

The results are in! ARRL has published the results of the 2019 Field Day event, the most popular operating event in amateur radio. Almost 1.1 million contacts were made over the weekend of June 22 and 23 and 3113 entries were submitted to ARRL.

Stations operating in the Utah Section submitted 33 entries. Of those 29 have a published score while the other four failed to submit all the required information and are counted as "checklogs," i.e. logs that can be used to verify other stations that worked the four.

We were happy to see that UARC again had the highest raw score in the state at 5,542. Utah Valley (UVARC) was a close runner-up with 5,256. However, raw score may not be the most fair comparison because different stations had different power levels, different numbers of transmitters and operators. So we have a listing of stations in order of percentile within their entry class. (Percentile is the percentage of entrants that got lower scores than the one being rated.)

Utah 2019 Field Day Scores

Part 1: Portable and Mobile Stations

Call	Score	Class	Pos.	Of	Pcntl	Club
K7CAR	1,840	1B1	5	129	96.1	
W7XP	3,626	1A	12	142	91.5	Uinta High Toppers
W7SP	5,542	3A	37	309	88.0	Utah ARC
K7UVA	5,256	3A	42	309	86.4	Utah Valley ARC
K7DAV	3,950	3A	76	309	75.4	Davis County ARC
AK7AN	600	1B2	15	39	61.5	
W7U	2,430	5A	45	83	45.8	Rainbow Canyons ARC
K7UM	1,304	2A	216	360	40.0	Utah DX Association
K7CTC	320	1B1	78	129	39.5	
W7SAG	490	1B1B	81	131	38.2	
N2OW	1,075	2B2B	7	11	36.4	
W7BAR	1,788	4A	102	141	27.6	Basin ARC
K7DBN	226	1B1	99	129	23.3	
K7NM	1,290	3A	246	309	20.4	Geezer Contesting Club
KC3IZX	182	1B1	108	129	16.3	
W7EO	538	2A	326	360	9.4	West Desert ARC
K7UB		4A		141		Golden Spike ARC (Checklog)
W7ZI		1C		42		(Checklog)
KI7PYH		1B2		39		(Checklog)

Part 2: Fixed Stations

Call	Score	Class	Pos.	Of	Pcntl	Club
K7KC	4,292	1E	11	391	97.2	
W7RCH	2,450	1F	1	32	96.9	Cottonwood Heights ARC
W7CXX	1,028	1D	31	725	95.7	
K7PDW	710	1E	20	391	94.9	Collins Aerospace Radio Club
WI7P	330	1E	21	391	94.6	
KZ7ZUL	910	1D	43	725	94.1	
K7DOD	220	1D	226	725	68.8	
W7DRC	2,292	3F	18	56	67.9	Dixie ARC
K7PDW	710	1E	136	391	65.2	
WA0PFC	194	1D	342	725	52.8	
WA0JTC	172	1D	365	725	49.7	
WI7J	454	1E	200	391	48.8	
AG7GX	90	1D	527	725	27.3	
AD7QH	62	1D	613	725	15.4	
WB1KE		1D	CK	725		(Checklog)

Here's a quick example of how percentile works. K7KC, above, came in 11th place among 391 other stations that also entered the 1E class (home station on emergency power). Therefore there

were 380 stations that scored lower than K7KC. So his percentile is 380/391 which is 97.2% when rounded to one decimal place. A very good showing!

Member of the Month

Linda Reeder, N7HVF

(Part 2)

By Linda Reeder, N7HVF

Linda is telling her own story. Last month the story got to where Linda was working on getting her General license but an aneurysm had forced her to start all over learning Morse Code.

One of my ham radio friends, Francis Boyer, WA7TNZ, knew about Handihams and got me in touch with them. The first person I talked to was Sister Alverna O'Laughlin, WA0SGJ. I joined Handihams. She told me they were having Handiham camp in August in Minnesota. At first I was afraid because I didn't know anyone in Minnesota and it was only one year since I had my aneurysm. But, with lots of encouragement from my parents, friends, and Sister Alverna, I went. It was the best thing I did that whole year.

Before I went to camp, a friend who used to live in northern California, Bruce Johnston, NK6C, wanted to help me with the the Morse Code. We sent code to each other. I had my low-band rig, a Kenwood 440. We sent code on a frequency I was allowed to use as a Technician. Bruce said once I passed the code test he would get a low band rig with voice on it.

Back to the camp.

Handihams is a non-profit organization that helps the disabled to get their ham radio licenses. The camp is in Lake George, Minnesota. We had

breakfast at 8 A.M., then the classes were from 9 until 12 noon. Then lunch and activities, then back to classes and dinner at 5:15. Some times the instructors had classes after supper depending on whether there was lots of material that needed to be covered.

David Rutledge, W9KRQ, was my code instructor. He worked with me three times a day and told me not to think about the code the rest of the time. The rest of the time I spent in Wayne Keeney, N6CCU's Advanced Class.

Test day came. We got four tries on the Morse Code. I passed on the fourth try. I was extremely happy to have my General license. I didn't pass the Advanced then, but I did two weeks later in Salt Lake.

The next few years at the handiham camp were spent in Dr. Dave Justis, KN0S, Extra class. I was very impressed. Dave had things made of cardboard and wire to teach us the difference between capacitors, resistors, and-gates, and or-gates. He brought all kinds of antennas for us to feel.

In September of 1990 I finally passed the Extra Class license. I will never forget that day. It was in the King Building during the time there was a big debate on waiving the 13- and 20-word-per-minute code tests. The ARRL wasn't too happy about this. Neither was Bruce L. Humphrys, K0HR, who was the director of Handihams at that time.

Marcella and I were very close to passing that code test, so the VE's decided to use us as guinea pigs. They wanted to show the FCC that there were ways for the disabled to pass Morse Code exams. If they couldn't copy they would have them send. They had never done this before and they wanted to see how it would work. This was really a challenge. I am so glad they let us use a key paddle rather than a straight key; otherwise, I don't think I could have passed. They told us what to send and it had to be 20 words per minute. I was so happy when they told us

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that both of us had passed.

I got on the Kadiddlehoppers Net and told Roy McFall, KF6GPU, that we passed our Extra Class licenses. Roy told everyone that checked in that we passed.

(To be continued)



Linda Reeder, N7HVF at a club meeting